

MHI
Copy 3

FM 11-85

DEPARTMENT OF THE ARMY FIELD MANUAL

SIGNAL BASE MAINTENANCE COMPANY (TOE 11-587())



RECORDS

DEPARTMENT OF THE ARMY • DECEMBER 1956

FIELD MANUAL } DEPARTMENT OF THE ARMY
 No. 11-85 } WASHINGTON 25, D. C., 14 December 1956

SIGNAL BASE MAINTENANCE COMPANY

(TOE 11-587())

	<i>Paragraph</i>	<i>Page</i>
CHAPTER 1. GENERAL		
Purpose -----	1	4
Scope -----	2	4
References -----	3	4
Mission -----	4	4
Capabilities -----	5	4
Mobility -----	6	5
CHAPTER 2. ORGANIZATION AND OPERATIONS		
Section I. General		
Authorization -----	7	6
Equipment -----	8	6
Augmentation -----	9	8
Introduction to company operations -----	10	8
II. Company headquarters		
General -----	11	8
Company mess -----	12	9
Company supply -----	13	9
Key personnel, company headquarters -----	14	9
III. Shop platoon		
General -----	15	10
Platoon headquarters -----	16	11
Supply section -----	17	11
Inspection section -----	18	12
Key personnel, shop platoon -----	19	14

	<i>Paragraph</i>	<i>Page</i>
IV. Repair platoon		
General	20	15
Platoon headquarters	21	15
Radio and radar repair section	22	16
Telephone and teletype- writer repair section	23	16
Photographic equipment re- pair section	24	17
Meteorological and instru- ment repair section	25	17
Engine and generator re- pair section	26	17
Cable and field wire repair section	27	17
Key personnel, repair pla- toon	28	17
V. Service platoon		
General	29	18
Machine shop	30	19
Canvas and leather shop ..	31	19
Utilities shop	32	19
Key personnel, service pla- toon	33	19
VI. Functional organization (sug- gested)		
General	34	20
Shop organization	35	20
Shop layout	36	22
CHAPTER 3. ADMINISTRATIVE OPER- ATIONS		
Section I. Training		
General	37	24
Advanced individual train- ing	38	24
Section training	39	26

	<i>Paragraph</i>	<i>Page</i>
II. Forms, records, and reports		
General	40	28
Work order forms.....	41	35
Supply and deadline forms.....	42	40
Records	43	43
Reports	44	43
III. Security and safety measures		
Security	45	46
Safety	46	48
Fire-fighting plans	47	49
IV. Standing operating procedure		
General	48	49
Basis and form	49	50
Revision	50	55
APPENDIX REFERENCES	--	56

CHAPTER 1

GENERAL

1. Purpose

The purpose of this manual is to provide information on the organization and employment of a signal base maintenance company, as organized and equipped under TOE 11-587().

2. Scope

This manual covers the mission, organization, employment, and administration of a signal base maintenance company in a theater of operations. It also covers training, records and reports, security, and related matters.

3. References

Publications pertaining to subjects within the scope of this manual are listed in the appendix.

4. Mission

The mission of a signal base maintenance company is to provide base maintenance for all classes of signal equipment.

5. Capabilities

A signal base maintenance company can perform base maintenance on the signal equipment required by a force of approximately 100,000.

Operations may be expanded when civilian labor or prisoner of war (POW) forces are utilized.

6. Mobility

Normally, the signal base maintenance company is assigned to a signal base depot established in a permanent location within the communications zone (ComZ). Such depots usually are moved only for emergency purposes or to improve the signal supply system. However, the base maintenance company may be required to move from one established base depot to another, or to a newly established depot within the ComZ. The vehicles assigned to the company are provided primarily for internal operations. Additional transportation must be provided for movement of the company.

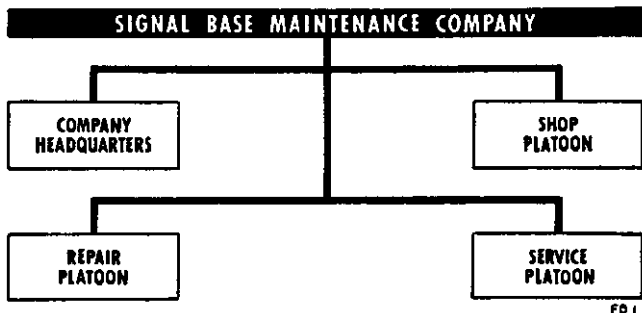
CHAPTER 2

ORGANIZATION AND OPERATIONS

Section I. GENERAL

7. Authorization

Personnel assigned to a signal base maintenance company (fig. 1) for service in a theater of operations are authorized by TOE 11-587 ().

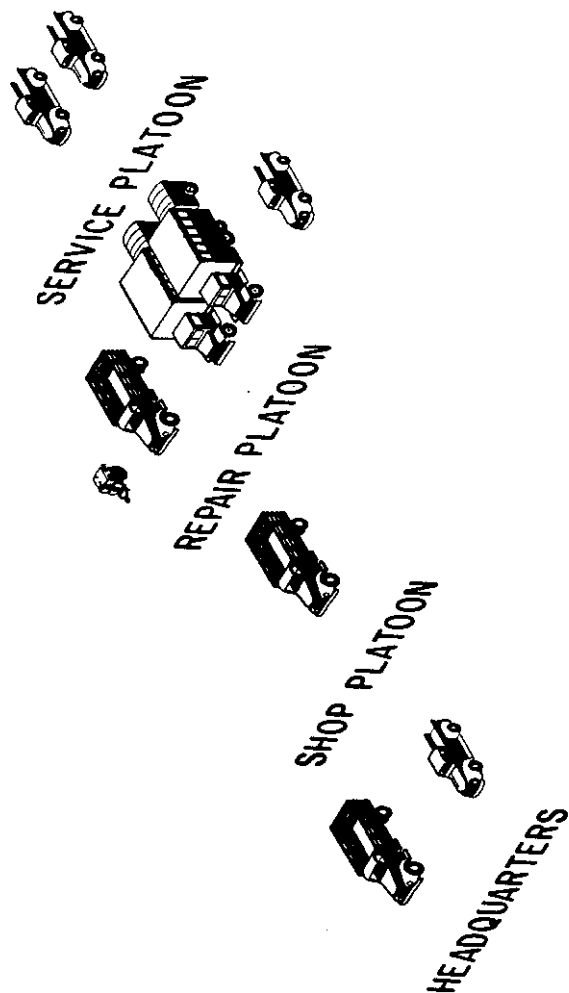


FD 1

Figure 1. Organization of signal base maintenance company.

8. Equipment

Equipment used by the signal base maintenance company is authorized by, and distributed in accordance with, TOE 11-587 (). A typical vehicle authorization is shown in figure 2.



FD-2

Figure 2. Type authorization, vehicles of signal base maintenance company.

9. Augmentation

The company may be augmented by labor personnel from a Quartermaster Service Company (TOE 10-67), civilian labor, or prisoners of war. These personnel are used to perform the functions of handling, packing, crating, and painting required in normal operations.

10. Introduction to Company Operations

The signal base maintenance company (normally with the assistance of civilian labor and POW's) performs base maintenance on all classes of signal equipment. It receives damaged or inoperable signal equipment from army signal depots, ComZ signal depots, and troop units in the ComZ, for modification, repair, rebuild, or salvage. Repair and maintenance is performed primarily on a repair-and-return-to-depot-stock basis. When so directed by the depot commander, the company may also furnish teams to orient personnel in the operation of new equipment and for inspection of new equipment.

Section II. COMPANY HEADQUARTERS

11. General

a. Company headquarters provides administrative, supply, and mess facilities for the three operating platoons of the company.

b. Company headquarters normally is somewhat removed from the site of repair operations.

12. Company Mess

The company may operate a separate unit mess, or it may pool mess personnel and facilities for consolidated operation. If the company operates its own mess, details of operation will be included in the company standing operating procedures (SOP). In consolidated mess operation, the details normally will be given in the SOP of the signal depot to which the company is attached.

13. Company Supply

The company supply office is responsible for the requisition, receipt, storage, and issue of all items of individual and company equipment. It maintains accounts and records to show the disposition of all vehicles, tools, and test equipment for which the company commander is responsible. Thus, the company supply office must establish complete and accurate hand receipt procedures to fix responsibility for each item of equipment issued. The company supply office does *not* requisition, receive, store, or issue spare parts or other bulk expendable items used by the operating platoons, nor does it receive or ship equipment being processed for repair and rebuild. This is a function of the supply section of the shop platoon; it is essential that the closest coordination and mutual assistance exist between the company supply office and the supply section.

14. Key Personnel, Company Headquarters

- a.* The *company commander* is responsible to

the signal base depot commander for the efficient operation, administration, and training of his command.

b. The *first sergeant* serves as administrative assistant to the company commander and supervises the company's personnel, housekeeping, and training activities.

c. The *mess steward* supervises the detailed operation of either a consolidated or unit mess, as determined by the depot commander in the depot SOP.

d. The *supply sergeant* supervises the requisition, storage, and issue of all items of individual and company equipment. He maintains accounts and records to show the disposition of all vehicles, tools, and test equipment for which the unit commander is responsible.

Section III. SHOP PLATOON

15. General

The shop platoon (fig. 3) exercises general operational control over the company's signal maintenance operations. It does this through *production control*, to include initiation, maintenance, and monitoring of necessary maintenance records and reports, and scheduling of repair work; *quality control*, to include establishment of maintenance standards and initial, production-line, and final inspection; and *supply control*.

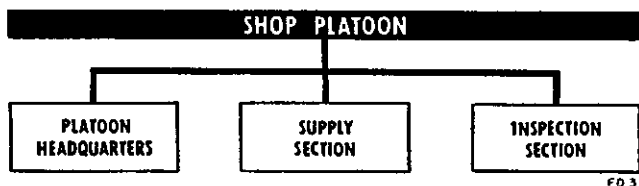


Figure 3. Organization of shop platoon.

16. Platoon Headquarters

a. The platoon headquarters is the office of the shop officer, and provides the clerical personnel for maintenance of platoon records. The following records and reports are representative:

- (1) Job order register (fig. 17).
- (2) Work request and job order form (fig. 13).
- (3) Subwork order register.
- (4) Work order file.
- (5) Receiving record.
- (6) Production control record.
- (7) Statistical data.
- (8) Correspondence file.
- (9) Suspense file.
- (10) Special records as required.

b. Platoon headquarters maintains liaison with all supported army signal depots, and any other units which are a source of equipment requiring repair.

17. Supply Section

a. The supply section of the shop platoon requisitions, receives, stores, and issues all maintenance parts and materials required for shop operations.

b. The supply section establishes and maintains stock levels on such frequently consumed materials as solder, cleaning materials, paints, screws, nuts and bolts, etc. It is recommended that the section maintain a 60-day supply of these expendable items.

c. Since operations of the signal base maintenance company are of the mass-production or assembly-line type, new or replacement parts generally are requisitioned from the base depot as required for each project or program. To insure flexibility in the utilization of tools and test equipment, these items usually are placed on hand receipt to the supply officer from company supply. This officer, in turn, issues the items to operating sections on hand receipt.

d. The supply section has neither the personnel nor the equipment to function as a receiving and shipping section on a repair-and-return-to-user basis. This function normally is performed by the associated signal base depot company.

18. Inspection Section

The *inspection section* examines damaged or defective signal equipment and determines the repairs required. If repair is considered feasible, the section forwards the equipment to the appropriate repair section and furnishes the technical literature necessary for repair operations. The section also inspects repaired equipment before it is sent to depot stock.

a. Inspection Procedure. Section personnel perform a preinspection, a production-line inspection, and a final inspection on all equipment sent to the company for repair.

- (1) *Preinspection.* Upon receipt, damaged or defective equipment is given an initial inspection to determine the advisability of repair, extent of work to be performed, replacement parts required, test equipment to be used, and technical data necessary for completion of work. Inspection personnel should submit regular reports to the inspection officer.
- (2) *Line inspection.* Inspection section personnel are assigned to the repair sections to perform spot checks of work in progress. These checks should be made as frequently as is necessary to insure high standards of workmanship. The results of the spot checks form a basis for suggestions and recommendations pertaining to work being performed.
- (3) *Final inspection.* Inspection section personnel perform a final inspection on all equipment after it has been repaired to insure that all repaired equipment is in Class A condition before it is returned to depot stocks.

b. Technical Library. The inspection section maintains a library of technical, maintenance, and supply literature pertaining to Signal Corps equipment, methods, and operations. The section also

maintains a numerical card file and an alphabetical index of reference material on hand. The following types of literature should be maintained in the library:

- (1) Depot repair parts lists.
- (2) Federal specifications.
- (3) Government furnished property (GFP) inspection standards.
- (4) Instruction books.
- (5) Lubrication orders.
- (6) Maintenance information bulletins.
- (7) Maintenance parts lists.
- (8) Modification work orders.
- (9) Repair specifications.
- (10) Signal Corps specifications.
- (11) All SIG series dealing with parts and equipment.
- (12) Supply bulletins.
- (13) Technical bulletins.
- (14) Technical manuals.

19. Key Personnel, Shop Platoon

a. The *signal equipment maintenance and repair officer (shop officer)* serves in a dual capacity. He acts as executive of the company, and he serves as commander of the shop platoon. In the latter capacity, he supervises all phases of repair work, the requisition of parts and material, and the preparation of work order forms, maintenance reports, and control records. In addition, he interprets and implements technical directives, coordinates all shop activities, and maintains liaison

with those organizations which furnish inoperable equipment to the company for repair. He also establishes priorities, production schedules, and standards for maintenance operations.

b. The *signal supply warrant officer* is in charge of the supply section. He directs the procurement, receipt, storage, and issue of spare parts, shop supplies, assemblies, tools, and maintenance equipment. This officer must anticipate the present and future supply needs of the repair and service platoons and plan his requisitioning accordingly.

c. The *signal equipment maintenance and repair warrant officer (inspection officer)* commands the inspection section. He assigns inspectors to equipment received for repair, interprets technical directives, determines the feasibility of repairing damaged equipment, and insures adherence to specifications. He is responsible for conducting necessary training to maintain the duty performance of his inspectors at required standards.

Section IV. REPAIR PLATOON

20. General

The repair platoon (fig. 4) provides maintenance of radio, radar, telephone, teletypewriter, photographic, and meteorological equipment. It also repairs instruments, engines, and generators.

21. Platoon Headquarters

Platoon headquarters coordinates and supervises the operations of the various sections of the

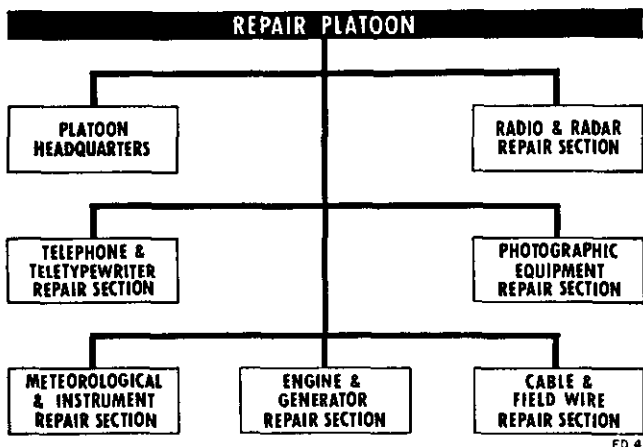


Figure 4. Organization of repair platoon.

repair platoon in the performance of all repair and maintenance operations prescribed on work orders. Paper work should be kept to a minimum, but it can include simplified workload records, production records, parts requisition forms; and other records as required. The platoon headquarters establishes maintenance procedures.

22. Radio and Radar Repair Section

The radio and radar repair section provides maintenance of all Signal Corps radio and radar equipment.

23. Telephone and Teletypewriter Repair Section

The telephone and teletypewriter repair section provides maintenance of telephones, telephone switchboards, teletypewriter switchboards, tele-

typewriters, repeaters, and carrier, ringing, and facsimile equipment.

24. Photographic Equipment Repair Section

The photographic equipment repair section performs maintenance on still and motion picture cameras (to include aerial cameras used by Army organizations) and associated equipment, such as tripods, carrying cases, deevolving machines, heaters, and flash attachments.

25. Meteorological and Instrument Repair Section

The meteorological and instrument repair section performs maintenance on radio-frequency and electronic measuring devices and all types of meteorological equipment.

26. Engine and Generator Repair Section

The engine and generator repair section performs maintenance on portable gasoline-operated power and associated electrical equipment, to include power distribution systems and power panels.

27. Cable and Field Wire Repair Section

The cable and field wire repair section rehabilitates cable and field wire. Maintenance performed includes splicing, vulcanizing, testing, and rewinding of field cable and splicing, testing, and rewinding of lead-covered and submarine cable.

28. Key Personnel, Repair Platoon

- a. The signal equipment maintenance and re-*

pair officer (repair officer) commands the repair platoon. He supervises the repair and the rebuild of damaged or defective Signal Corps equipment referred to him by the shop platoon. He maintains close coordination with the shop platoon officer and service platoon officer in scheduling repair operations and procuring maintenance parts.

b. The radio maintenance and repair warrant officer supervises the operations of the radio repair personnel engaged in modification, repair, and adjustment of radio equipment.

c. The radar maintenance and repair warrant officer supervises the operations of the radar repair personnel engaged in modification, repair, and adjustment of radar equipment.

d. The telephone and teletypewriter maintenance warrant officer supervises the operations of the telephone and teletypewriter equipment repair personnel engaged in modification, repair, and adjustment of wire equipment.

Section V. SERVICE PLATOON

29. General

The service platoon supports the operations of the repair platoon. It fabricates and/or repairs metal parts, repairs canvas and leather, paints equipment, constructs and repairs bins and benches, and maintains buildings and related facilities utilized in company operations. The platoon operates most effectively when organized into a machine shop, a canvas and leather shop, and a utilities shop (fig. 5).

30. Machine Shop

The machine shop is staffed by machinists, welders, and blacksmiths, who repair, modify, and fabricate all types of metal equipment. In oversea operations, where the company normally is augmented by civilian, troop, or POW labor, personnel of the machine shop act as supervisors and technicians on assembly lines.

31. Canvas and Leather Shop

Personnel of this shop fabricate or repair canvas and leather items used in connection with signal equipment.

32. Utilities Shop

Personnel of the utilities shop perform such tasks as carpentry, masonry, electrical work, painting, plumbing, and sheet metal work.

33. Key Personnel, Service Platoon

a. The *signal equipment maintenance and repair officer* (platoon leader) commands the service platoon. He maintains close liaison with the shop officer and the repair officer in such matters as scheduling repair operations, procurement of materials, subwork orders, and quality control. The service platoon leader also is responsible for all records and reports required to control the activities of his shops.

b. The *shop warrant officer* supervises the detailed operations of the three service shops. He is responsible to the service platoon leader for main-

tenance, repair, modification, and fabrication of all Signal Corps equipment referred to the platoon. This includes the performance of custom work in support of the repair sections of the repair platoon. The shop warrant officer also is responsible for promoting safety practices, and for the cost consciousness and work simplification programs. He is assisted by the platoon sergeant, a metal-working foreman who controls the detailed operations of the service shops.

Section VI. FUNCTIONAL ORGANIZATION (SUGGESTED)

34. General

A shop operational plan must be set up to utilize the personnel of the signal base maintenance company in the most efficient manner. The following paragraphs present a *suggested* functional organization and shop layout to facilitate accomplishment of the signal base maintenance company mission.

35. Shop Organization

In the suggested working organization (fig. 5), all of the platoon headquarters are grouped into one working unit, the shop office. In this arrangement, the shop office consists of the shop officer (company executive officer), the platoon leaders of the repair and service platoons, a shop noncommissioned officer, and a records noncommissioned officer. The shop supply and inspection sections operate directly under the shop office, and all work

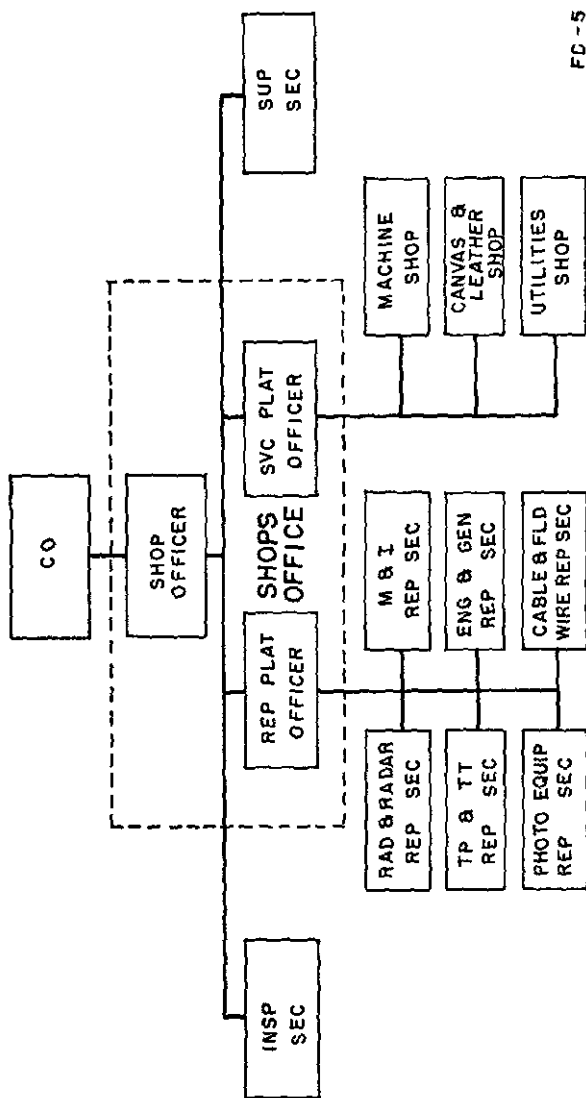


Figure 5. Suggested functional organization of signal base maintenance shop.

requests are processed through the shop office to either the repair or service platoon. The shop office acts as final authority on all matters pertaining to the maintenance and deadlining of signal equipment.

36. Shop Layout

Figure 6 presents a suggested layout of shop facilities for one large building. However, the shop sections could be set up in the same manner if it were necessary to use two or more smaller buildings.

a. The carpenter, engine and generator repair, and machine shops are grouped in one corner of the building to isolate noise as much as possible.

b. The photographic, meteorological and instrument, and paint shops are located in dustproof rooms.

c. The telephone and teletypewriter and the radio and radar repair sections are divided into subsections to facilitate assembly line repair operations.

d. The radio and radar shops are provided with screen rooms to protect against radio-frequency radiation.

e. A large inclosed supply area is readily accessible to the repair shops.

f. The inspection section (par. 18) and the reference library and files are adjacent to the shop office.

g. The cable and field wire repair section occupies an area near the entrance to the building. This provides it with easy access to the loading platform.

CHAPTER 3

ADMINISTRATIVE OPERATIONS

Section I. TRAINING

37. General

Personnel of a signal base maintenance company are trained first as combat soldiers, then as technicians and specialists. To achieve and maintain proficiency in both fields, continuous training must be given in basic military as well as technical subjects. These fields should be covered concurrently during advanced and post-cycle training of individuals, teams, sections, platoons, and finally of the entire company. On-the-job training must be implemented and closely supervised. Paragraphs 38 and 39 discuss only those training matters and methods that are particularly applicable to the signal base maintenance company. Detailed information on training the company is contained in FM 21-5, ATP's 11-205 and 21-114, and ATT 11-14.

38. Advanced Individual Training

This phase is divided into general and specialist training. General training imparts a knowledge of the organization, mission, and functions of the Signal Corps and of the company. It also acquaints all individuals with those continuing basic military

subjects that are considered necessary for physical, mental, and moral development. Specialist training qualifies the individual to perform the job required by his TOE assignment. The MOS positions listed below are intended to serve as a guide for training purposes and do not represent strength figures of the company.

a. School-Trained Specialists. All of the specialists listed below must be trained at service schools. They should be given unit training in allied specialties while they are waiting for service-school quotas.

Teletypewriter repairman

Mess steward

Cable splicer

Carrier equipment repairman

Electrical instrument repairman

Camera repairman

Manual telephone equipment repairman

Automatic telephone equipment repairman

Sound projector repairman

Electric motor repairman

Radio repairman

Fire control instrument repairman

Radar repairman

Personnel administrative clerk

b. School- or Unit-Trained Specialists. A percentage of the specialists listed below should be school-trained; the others should be unit-trained by service school graduates:

Electric power equipment supervisor

Metal-working foreman

Cook
Machinist
Power generator repairman
Engine rebuilder
Canvas and leather repairman

c. Unit-Trained Specialists. In general, specialists in a supervisory capacity are unit-trained for their duties after qualification in their specialty. Specialists in this category are—

Photographic equipment repair supervisor
First sergeant
Radio repair supervisor
Supply sergeant
Armorer
Radar repair supervisor
Blacksmith
Welder
Signal supply supervisor
Records supply clerk
Utilities repairman
Light-truck driver
Clerk-typist
Toolroom keeper

39. Section Training

On-the-job training is the most important type of training received by personnel of the signal base maintenance company. During this training, *company repairmen* should be instructed in assembly line repair methods. The following is a subject matter breakdown of suggested training programs:

a. Inspection Section.

<i>Subject</i>	<i>No. hours</i>
Orientation -----	4
Introduction to inspection section -----	30
Use of test equipment -----	34
Preinspection -----	44
Review of data pertinent to inspection section -----	24
Line inspection -----	44
Review of use of test equipment -----	24
Final inspection -----	88
Review of technical data pertinent to inspection section -----	14
	306

b. Shop Supply Section.

<i>Subject</i>	<i>No. hours</i>
Orientation -----	4
Posting -----	98
Table of allowances -----	34
Table of organization and equipment -----	68
Memorandum receipts -----	34
Shipping and receiving -----	34
Tools and parts room -----	34
	306

c. Engine and Generator Repair Section.

<i>Subject</i>	<i>No. hours</i>
Orientation -----	4
Disassembly -----	64
Component line—disassembly -----	34
Component line—reassembly -----	34
Component line—adjustment, test -----	34
Reassembly -----	88
Adjustment, test -----	48
	306

d. Cable and Field Wire Repair Section.

<i>Subject</i>	<i>No. hours</i>
Orientation -----	4
Use of test equipment -----	30
Test and repair of lead-covered cable -----	68
Test and repair of field wire -----	34
Test and repair of rubber-covered cable -----	136
Test and repair of associated equipment -----	34
	306

e. Service Platoon. Specialists of the service platoon—machinists, canvas and leather repairmen, and metal workers—will be given, primarily, on-the-job training. In addition, each trainee will receive weekly :

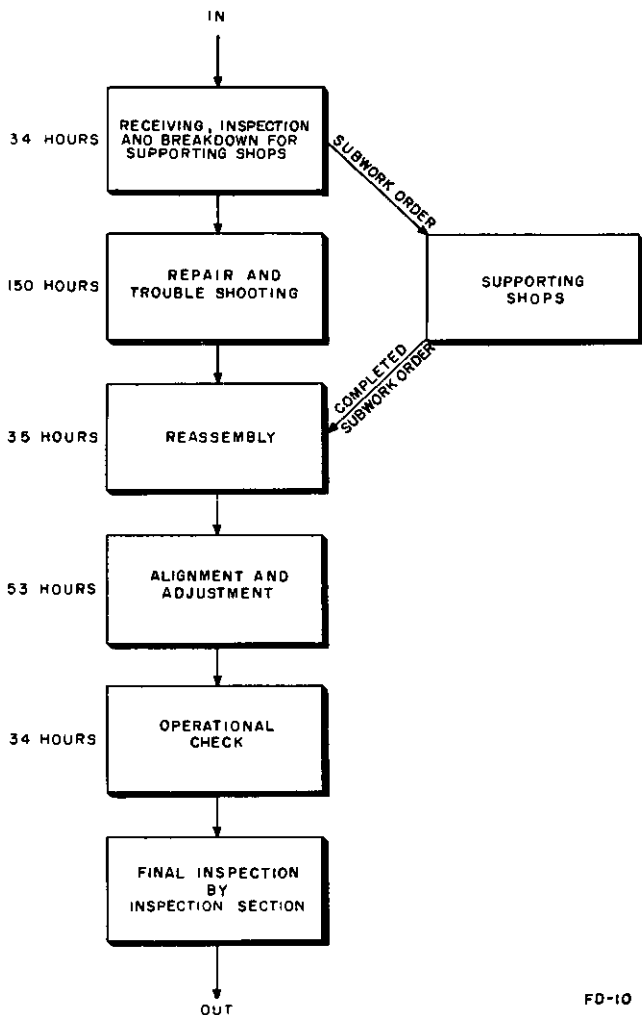
<i>Subject</i>	<i>No. hours</i>
Orientation (1st week only) -----	4
Safety -----	1
Care and maintenance of hand tools -----	1
Paper work -----	1
Review of training received (last week) -----	4

f. Other Repair Sections. On-the-job training of the remaining sections is best illustrated by flow charts (figs. 7-12).

Section II. FORMS, RECORDS, AND REPORTS

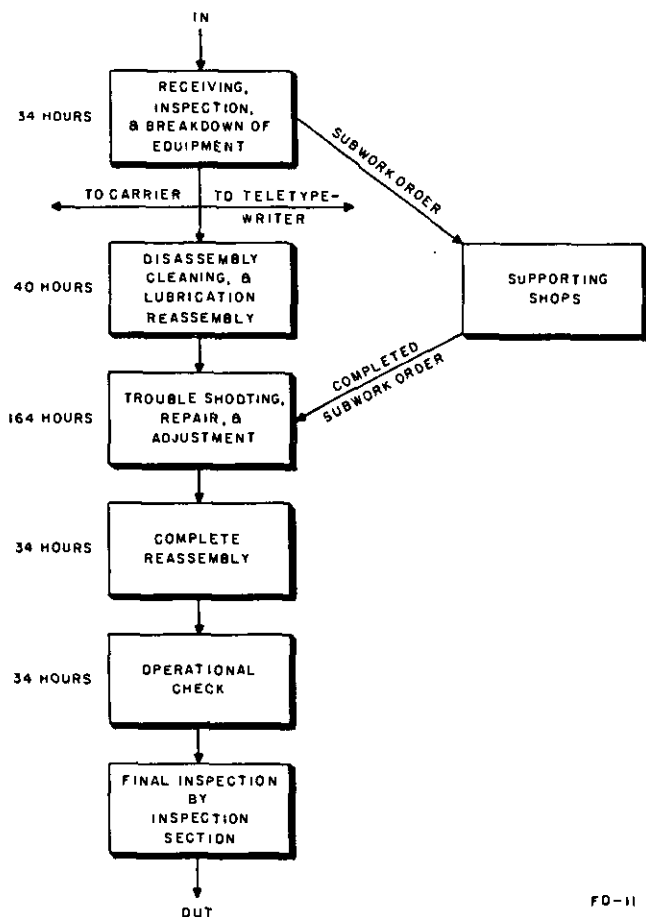
40. General

The forms, records, and reports covered in this section are recommended for general usage in all of the shops of the company. Certain nonstandard forms also are deemed necessary for proper shop operation, and should be composed locally, under the provisions of paragraph 20a, AR 310-4, as the operating need arises.



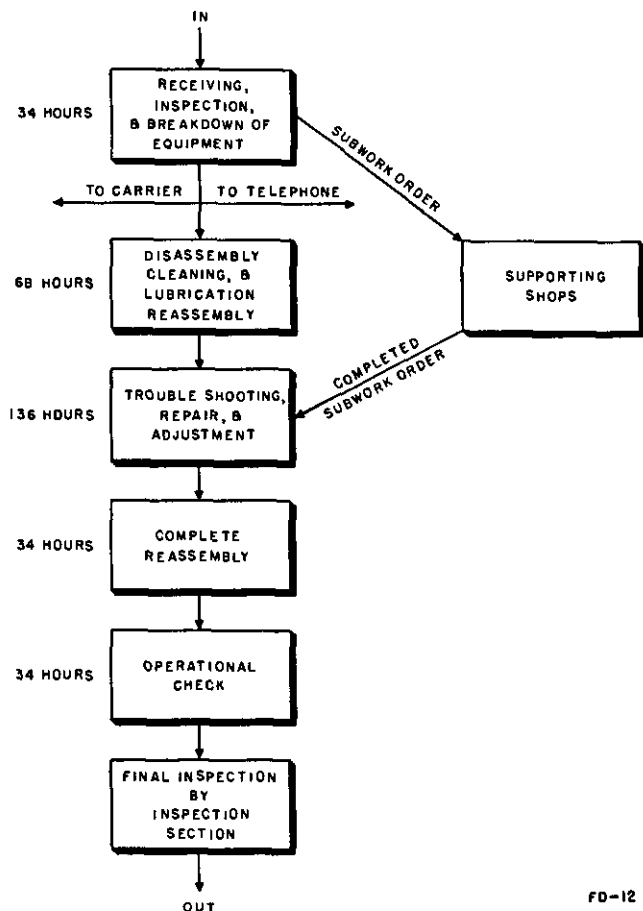
FD-10

Figure 7. Suggested operational breakdown for on-the-job training of radio and radar repair section.



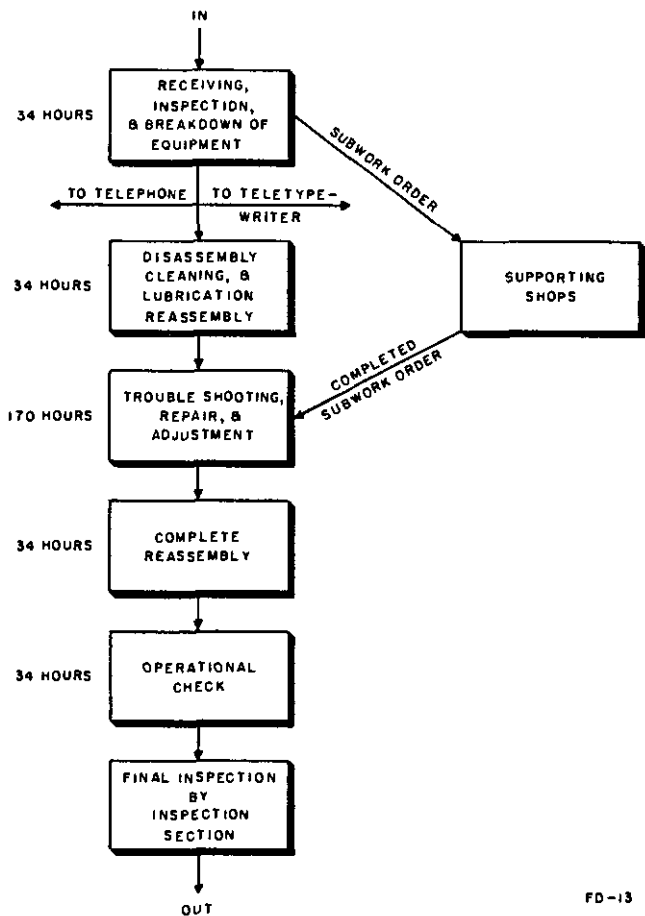
FD-11

Figure 8. Suggested operational breakdown for on-the-job training of telephone subsection.



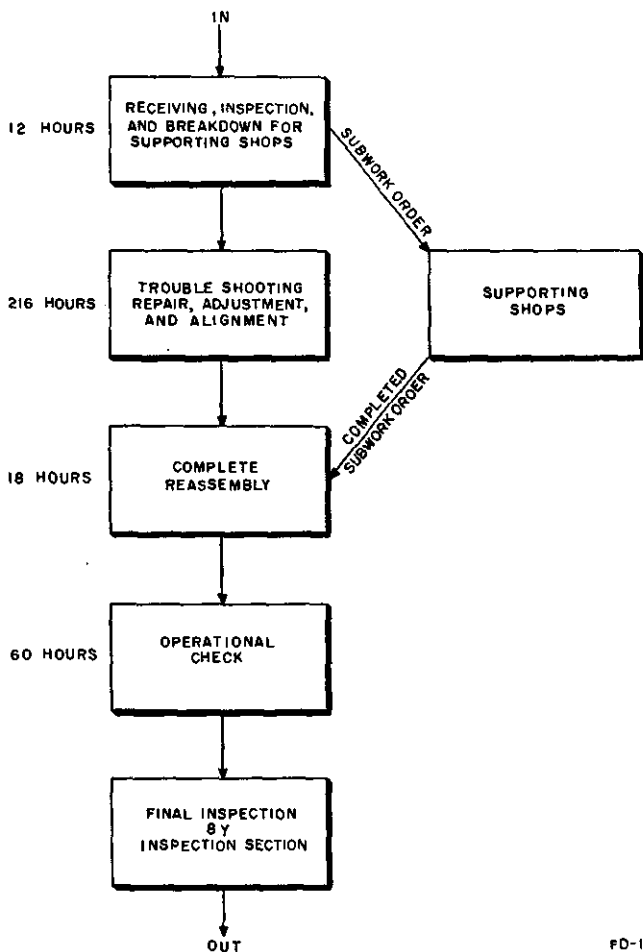
FD-12

Figure 9. Suggested operational breakdown for on-the-job training of teletypewriter subsection.



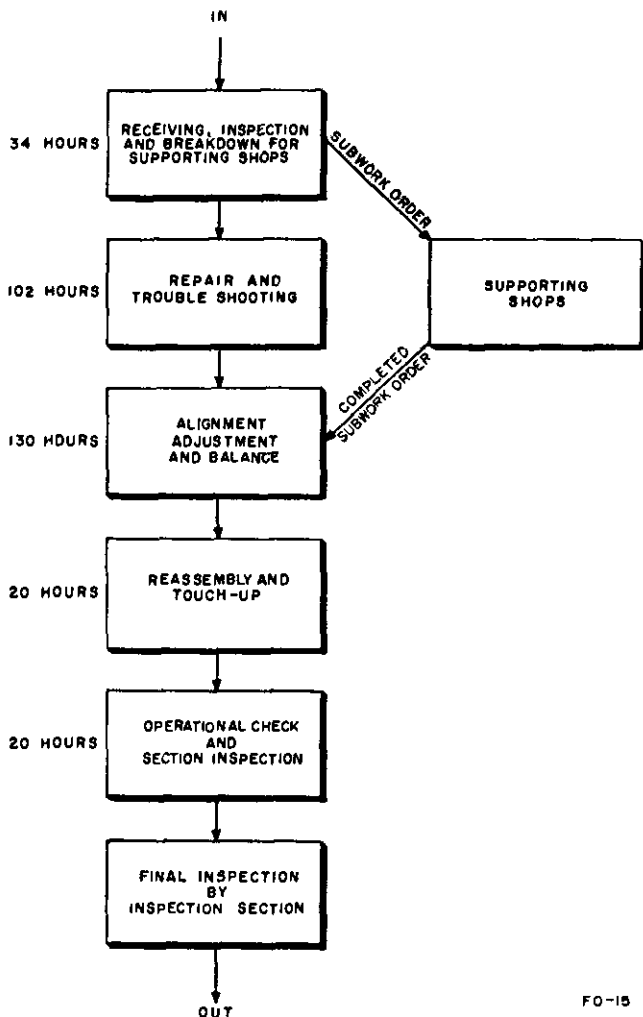
FD-13

Figure 10. Suggested operational breakdown for on-the-job training of carrier subsection.



FD-14

Figure 11. Suggested operational breakdown for on-the-job training of photographic equipment repair section.



FO-15

Figure 12. Suggested operational breakdown for on-the-job training of meteorological and instrument repair section.

41. Work Order Forms

a. *DA Form 811 (Work Request and Job Order)*. This form (fig. 13) is used for primary work orders and shop primary work orders. A primary work order originates at a source other than the company shop offices, whereas a shop primary work order originates in the company shop offices. The word "Shop" is typewritten in front of the words "Work Request and Job Order" to distinguish between a primary and a shop primary work order. The routing, which is identical for both forms, is given below.

- (1) Shop headquarters, upon receipt of equipment for repair, prepares DA Form 811 in quadruplicate. It then records the pertinent repair information in the proper register, initiates the necessary production control measures, and forwards three copies of DA Form 811 to the inspection section. If the equipment to be repaired has been referred by the associated signal base depot company as part of a repair - and - return - to - user transaction, the shop headquarters gives the fourth copy of DA Form 811 to the depot company for transmission to the organization which turned in the equipment. If the equipment is to be repaired on a repair-and-return-to-depot-stock basis, shop headquarters files the fourth copy.

- (2) The inspection section, upon receipt of the three copies of DA Form 811, enters pertinent TM's, MWO's, SIG 7&8's, and other data on the form. It then records pertinent repair information in the proper register and forwards three copies of DA Form 811 to either the repair or service platoon headquarters, depending on ultimate destination.
- (3) The repair or service platoon headquarters records pertinent repair information in the proper register, initials the routing indicator, and forwards the three copies of DA Form 811 to the indicated section.
- (4) The section performing the work records pertinent repair information in the proper register and initials the routing indicator. Upon completion of the work, this section enters on DA Form 811 the number of man-hours expended and the nomenclature, stock number, and quantity of parts used. It then closes out the project in the proper register, inserts the third copy of DA Form 811 in a job envelope and attaches the envelope to the repaired equipment, and forwards the original and second copy of DA Form 811 to platoon headquarters.
- (5) The repair or service platoon headquarters closes out the project in the proper register and forwards the original and

second copy of DA Form 811 to shop headquarters.

- (6) Shop headquarters closes out the project in the proper register and completes production control action. If the equipment was repaired on a repair-and-return-to-depot-stock basis, shop headquarters files the original of DA Form 811 and destroys the fourth copy. If the equipment was repaired on the basis of a primary work order (repair-and-return-to-user transaction for the associated signal base depot company), shop headquarters completes the depot work order from the information on DA Form 811 and forwards the depot work order to depot headquarters. In both cases, it forwards the second copy of completed DA Form 811 to the inspection section.
- (7) The inspection section closes out the project in the proper register, inspects the equipment, and checks the second copy of DA Form 811 against the third copy. It then destroys the second copy.

b. Subwork Order (Unnumbered). Subwork order forms are composed locally to facilitate piecework within the signal base maintenance company. Figure 14 presents a form that might be used by the radio repair section to request custom work by the machine shop (fabrication of a steel shaft needed for repairs previously specified on DA Form 811, fig. 13).

SUBWORK ORDER

6 AUG 19 56

SECTION NO. 1 PRIORITY C JOB ORDER NO. 110-0-56

REQUESTED RETURN DATE 12 AUG 19 56

REQUESTING SECTION RADIO

AUTHORIZED BY SFC King

RECEIVED BY SGT Adams

DESCRIPTION OF WORK TO BE PERFORMED

FABRICATE ONE SHAFT 3/8" DIA
STEEL, 5" LONG, F/KEYER
TG-10

ROUTING AND FLOW

ASSIGN TO	DATE IN	SIGN IN	DATE OUT	SIGN OUT	MAN. HOURS
Repair plat	13 AUG 56	RBT	13 AUG 56	RBT	
Shop 14	13 AUG 56	JPW	13 AUG 56	JPW	
Service plat	13 AUG 56	EJR	13 AUG 56	EJR	
Machine shop	14 AUG 56	WCC	14 AUG 56	WCC	5 HR
Service plat	15 AUG 56	EJR	15 AUG 56	EJR	
Shop 14	15 AUG 56	JPW	15 AUG 56	JPW	
Repair plat	15 AUG 56	RBT	15 AUG 56	RBT	
				Total Time	5 HR

DATE 15 AUG 56 FINAL INSPECTION SGT JRM
(ATTACH DIAGRAMS OR SKETCH. DO NOT USE THIS FORM. USE BACK FOR MATERIALS USED AND ADDITIONAL DATA.)

Figure 14. Suggested form for subwork order.

FD-16

42. Supply and Deadline Forms

a. *DA Form 9-79, (Parts Requisition).* This form (fig. 15) is used by the operating sections to requisition maintenance parts from the supply section of the shop platoon, and by the supply section of the shop platoon to requisition maintenance parts from the signal base depot. It is suggested that this form be originated in duplicate. The

DATE 2 AUG 56		PARTS REQUISITION FOR		JCS ORDER NO 1188	
DEPARTMENT		MAKE OR TYPE Headset	MODEL HS-16A	REQUISITION NO 110-265-54	
		SERIAL OR U.S. REG NO		18	
FROM TT & TP SECTION			TO SHOP SUPPLY		
QUANTITY		STOCK NO	DESCRIPTION	UNIT PRICE	AMOUNT
ORDERED	RECEIVED				
1		20740	Head band		
 	 	 	LAST ITEM	 	
		Basis:	SIG 7 & 8 Dated		
			7 July 1954		
			SFC William J. Zebley		
			SECTION COPY - FORWARD		
			TO SHOP		
			SUPPLY		
APPROVED J. J. Weinert M/Sgt		FILED BY		RECEIVED BY	
GRADE OR TITLE		GRADE OR TITLE		GRADE OR TITLE	

DA Form 9-79 (Rev. 1-55) Replaces DA AGO Form 9-79, 9 June 1954, which may be used (Formerly DA AGO Form 9-79) (FOLD TO INSERT IN 1" x 5" FILE)

DA FORM 9-79 (Rev. 1-55) (FOLD TO INSERT IN 1" x 5" FILE)

FD-9

Figure 15. Parts requisition form.

originating section should file the duplicate copy and forward the original through the appropriate platoon headquarters and shop headquarters to the supply section of the shop platoon.

b. DA Form 10-155 (Component Parts of Major Items Transfer Memorandum). This form is used by all sections to transfer equipment from one section to another.

c. DA Form 447 (Turn-in Slip). This form is used by all sections to turn in tools and equipment that have been rendered unserviceable through fair wear and tear or that are in excess of authorized allowances. It also is used to obtain credit for tools and equipment lost or damaged through other than fair wear and tear that are covered by reports of survey or statements of charges.

d. DA Form 446 (Issue Slip). This form is used by all sections to requisition tools and materials other than parts required for repair work.

e. Deadline Notice (Unnumbered). This suggested form (fig. 16) is used when work is halted or suspended for an indefinite period for any reason. The section performing the work originates the deadline notice in duplicate. Normally, the form is routed through the following channels:

- (1) The *originating section* enters the date, identity of the originating section, the section chief, the date on which the equipment is deadlined, the depot work order number, the primary work order number, the priority of work order, the reason for deadline (in block one), and

the parts requisition number and date (if equipment is deadlined for parts). It files the duplicate copy with the primary work order and forwards the original copy to its platoon headquarters.

- (2) The *repair or service platoon headquarters* initials the routing indicator, enters the date received and the date forwarded, and forwards form to shop headquarters.
- (3) *Shop headquarters* enters the date received, initials the routing indicator, and enters disposition of deadlined equipment in block two. If the equipment has been deadlined for *other* than parts, shop headquarters places the deadline notice in a suspense file for future disposition. If the equipment has been deadlined for parts, shop headquarters enters the date forwarded, and then forwards the deadline notice to shop supply.
- (4) In the case of equipment deadlined for parts, the *shop supply section* takes the action indicated by the shop headquarters in block two, checks the requisition, and places the deadline notice in a suspense file pending acquisition of the needed parts. Upon arrival of the parts, the shop supply section completes block three to indicate availability of parts to complete primary work order, and forwards the deadline notice to shop headquarters.

- (5) When the cause for deadlining the equipment has been removed, *shop headquarters* initials the routing indicator; indicates disposition of deadlined equipment in block four, to include rescheduling if necessary; and forwards form to platoon headquarters of originating section.
- (6) The repair or service platoon headquarters initials the routing indicator and forwards the form to the originating section.
- (7) The *originating section* takes necessary action to complete the primary work order, as indicated in block four of the deadline notice. Upon completion of necessary work, the originating section forwards the deadline notice with the completed primary work order to shop headquarters.

43. Records

DA Form 9-77 (Job Order Register) (fig. 17), is used by shop headquarters, the inspection section, repair platoon headquarters, service platoon headquarters, and all operating sections to maintain a permanent record of all work orders passing through the individual headquarters. Each section must maintain *separate* job order registers for primary work orders, shop primary work orders, and subwork orders.

44. Reports

a. Letter Form, Daily Activity Report. To keep

DEADLINE NOTICE

DATE <u>3 AUG 1956</u>		ORIGINATING SECTION <u>PHOTO</u>		DEPT WORK ORDER NO. <u>2000</u>	PRIORITY <u>C</u>	JOB ORDER NO. <u>110-000-56</u>
SECTION CHIEF <u>Sgt. Johnson</u>						
DATE OF DEADLINE <u>3 AUG 1956</u>						
DATE OFF DEADLINE <u>10 AUG 1956</u>						
ROUTING AND FLOW						
	DATE IN	SIGN	DATE OUT	SIGN	RE-MARK	
Platoon Hq	3 AUG	RJM	3 AUG	RJM		
Shop Hq	3 AUG	BCF	3 AUG	BCF		
Shop Supply	3 AUG	WNP	10 AUG	WNP		
Shop Hq	10 AUG	BCF	10 AUG	BCF		
Platoon Hq	10 AUG	RJM	10 AUG	RJM		
Section	10 AUG	BJ	11 AUG	BJ		

1. REASON FOR DEADLINE (SECTION)	2. DISPOSITION OF DEADLINE MATERIAL (SHOP OFFICE)
Deadlined for lack of parts needed to complete repair of PH-131. REQ #00, 3 AUG	Remove from section to deadline area. (PHOTO)
3. SUPPLY AVAILABILITY (SHOP SUPPLY)	4. RESCHEDULING (SHOP OFFICE)
Parts available 10 AUG 1956 REQ #00, 3 AUG received 10 AUG	Remove from deadline and reschedule for 12 AUG 1956.

FD-17

Figure 16. Suggested form for deadline notice.

Page No. / DATE / TIME
Organization NO. 310101 CA

Latex No.	Request No.	Job Class No.	Date Order Issued	Date Order Received	Date Order Filled	Make or Type and Model	Serial or U.S. No.	Description of Work	Work Being Performed By
1	3140	118-01-56	2 AUG 56		20 AUG 56	154 BC-191	0005	Repair, test, & return	RADIO
2	2568	118-01-56	2 AUG 56		13 AUG 56	584 HS-16		Repair, test, & return	PI & TP
3	2000	110-000-56	3 AUG 56	+		154 PH-131	1-000	Repair, test, & return	MFI
4	3000	110-000-56	4 AUG 56	+	25 AUG 56	154 I-177		Repair, test, & return	RADAR
5	2000	110-000-56	6 AUG 56			154 TS-370		Repair, test, & return	
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									

NOTE: + INDICATES EQUIPMENT IS DEADLINE
O INDICATES EQUIPMENT IS OFF DEADLINE

DA FORM 9-77
1 APR 73
REPLACES DD FORM 724, 7 DEC 1970 WHICH
WILL BE USED UNTIL EXHAUSTED

Figure 17. Job order register.

FD-7

the company commander fully informed on day-to-day activities, a daily report is submitted in letter form by the shop officer. This report includes a compilation of all work completed and any unusual activities which may have taken place within a given 24-hour period.

b. Note Form, Daily Attendance Report. This is used by the operating sections to render a daily attendance report through platoon headquarters to the shop office.

Section III. SECURITY AND SAFETY MEASURES

45. Security

Security of the signal company is divided into two parts: *external security*, to provide protection against enemy forces, as well as protection against looting and pilferage by friendly forces; and *internal security*, to prevent misuse of government equipment by local personnel and to provide adequate measures for the protection of classified documents.

a. External Security. Responsibility for the security of the signal base maintenance company rests solely with the company commander. In actual practice, however, the commander personally concerns himself only with external security measures taken against possible enemy action; the shop officer (par. 19a) normally handles, for the commander, those measures taken to prevent looting and pilfering. Decisions on the amount and type of security measures to be taken depend on the personnel and arms available, and on the pro-

visions of the security portion of the company SOP or the signal depot SOP. Generally, security measures will include locking of repair shops at the close of the day's activity, daily checks by non-commissioned officers in charge of repair shops, periodic checks by the officers assigned to the shops, and the establishment and control of any internal guard deemed necessary.

b. Internal Security. Each section chief is charged by the commander with responsibility for establishing adequate measures of internal security within his section. These measures include, but are not limited to:

- (1) Safeguarding of military information in accordance with AR 380-5 and local policy. For example, the operational and technical characteristics of some equipments are classified **CONFIDENTIAL** or higher. Therefore, the technical manuals, schematic and wiring diagrams, and operational specifications for these equipments must be kept in a secure place.
- (2) Preparation of a file of personnel cleared for access to classified information. The shop platoon maintains this file, and either the shop officer or the repair or service platoon leader makes constant checks to insure such file is current, accurate, and complete.
- (3) Provision of tool cribs in each section. Tools should be removed from the cribs only by authorized personnel, and each

tool should be signed out properly. All tools should be placed in the cribs at the close of operations each day or whenever they are unattended. In addition, inventories should be taken frequently, by section chiefs to insure the completeness of issued equipment. A formal *periodic* inventory should be taken at least once a month.

46. Safety

a. The repair and service sections use equipment which by its very nature is dangerous and contains safety hazards. Therefore, safety programs must be promptly instituted and rigorously enforced. The following are typical sound and routine safety practice:

- (1) Use of safety shoes, safety goggles, and safety shields.
- (2) Isolation of heavy equipment in well-marked danger areas—this to include the prominent display of high-voltage signs where applicable.
- (3) Strict compliance with bans against the use of unauthorized cleaning fluids, operation of gasoline and diesel power units in inclosed places, confined storage of oily rags, etc.

b. In addition to the above measures, each section should conduct regularly scheduled classes to familiarize personnel with current safety practices, and the shop officer should appoint one non-

commissioned officer to enforce existing safety rules. This noncommissioned officer should inspect the shop weekly, investigate and eliminate all safety hazards, and submit a written report to the shop officer.

c. The safety program should include periodic instruction in first aid, with particular emphasis on treatment for electrical shock, to include instruction in artificial respiration.

47. Fire-fighting Plans

Shop fire-fighting plans must be set up to conform with local fire-fighting regulations. All sections should post these regulations, as well as the telephone numbers to call in event of fire, in a prominent place. In addition, each section should have a designated fire-fighting squad to take charge, pending the arrival of organized fire equipment. The shop safety noncommissioned officer should include inspection of fire-fighting plans and equipment in his weekly safety inspection.

Section IV. STANDING OPERATING PROCEDURE

48. General

An SOP is a set of instructions covering administrative, tactical, and technical methods, practices, and operations of a routine nature. It prescribes uniform procedures for performing various detailed tasks, and it anticipates as many situations as possible to minimize the need for detailed or minor orders. A thorough SOP promotes a feeling of efficiency and confidence in sub-

ordinate leaders by enabling them to know in advance what they are expected to do and how they are expected to do it.

49. Basis and Form

Preparation of the signal base maintenance company SOP is a responsibility of command. Normally, the SOP is based on the SOP of the signal depot to which the company is attached. The body of the SOP for a signal base maintenance company might cover :

a. General.

- (1) Purpose and scope of the SOP.
- (2) Company mission.
- (3) Company assignment.
- (4) Company capabilities.
- (5) Organizational chart.

b. Command.

- (1) Liaison officers.
- (2) Procedure guides.
- (3) Orders.

c. Security.

- (1) Plan.
- (2) Conduct.
- (3) Responsibilities.
- (4) Measures.
- (5) Weapons.

d. Movement.

- (1) Function of the advance party.
- (2) Function of the guide party.
- (3) Convoy operation.
- (4) March discipline.
- (5) Signal communications.

e. Training.

- (1) General.
- (2) Responsibilities.
- (3) Objectives.
- (4) Directives.
- (5) References.
- (6) Phases.
- (7) Equipment.
- (8) Schools.
- (9) On the job.
- (10) Records and reports.

f. Personnel.

- (1) Strength reports.
- (2) Civilian labor.
- (3) POW labor.
- (4) Military justice procedure.
- (5) Casualties (to include line-of-duty injuries).

g. Operations.

- (1) *Company headquarters.*
 - (a) Company officers.
 - (b) Company administration.
 - (c) Mess.
 - (d) Supply.
 - (e) Motor.
 - (f) Mail procedures.
 - (g) Area policing.
- (2) *Shop platoon headquarters.*
 - (a) Platoon officers' responsibilities.
 - (b) Administrative responsibilities.
 - (c) Operational responsibilities.
 - (d) Operational control.
 - (e) Priorities.

- (f) Schedules.
 - (g) Requirements.
 - (h) Maintenance standards.
 - (i) Liaison.
 - (j) Work orders and subwork orders.
 - (k) Control records.
 - (l) Statistical data.
 - (m) Local procurement requirements.
 - (n) Transportation.
 - (o) Command and recurring reports.
 - (p) Shop security.
 - (q) Fire plan.
- (3) *Supply section.*
- (a) Section officers' responsibilities.
 - (b) Receiving, storing and issuing operations.
 - (c) Stock records.
 - (d) Stock locator files.
 - (e) Replenishment requisitions.
 - (f) Maintenance parts.
 - (g) Inventories.
 - (h) Stockroom operations.
 - (i) Materials-handling equipment.
 - (j) Hand receipt accounts.
 - (k) Statistical data.
 - (l) Recurring or special reports.
 - (m) Training.
 - (n) Security.
 - (o) Fire plan.
- (4) *Inspection section.*
- (a) Section officers' responsibilities.
 - (b) Inspection procedures.
 - (c) Classification of equipment.

- (d) Maintenance standards.
 - (e) Initial inspections.
 - (f) Maintenance requirements.
 - (g) Action on work orders.
 - (h) Parts requirements lists.
 - (i) Routing of equipment.
 - (j) Inspections during operations.
 - (k) Final inspections.
 - (l) Disposition of salvage.
 - (m) Records and reports.
 - (n) Maintenance literature.
 - (o) Training.
 - (p) Safety.
 - (q) Security.
 - (r) Fire plan.
- (5) *Repair platoon headquarters.*
- (a) Platoon officers' responsibilities.
 - (b) Administrative responsibilities.
 - (c) Operational responsibilities.
 - (d) Operational control.
 - (e) Priorities.
 - (f) Schedules.
 - (g) Liaison.
 - (h) Procurement of parts.
 - (i) Work orders and subwork orders.
 - (j) Control records.
 - (k) Statistical data.
 - (l) Records and reports.
 - (m) Administrative responsibilities.
 - (n) Safety.
 - (o) Fire plan.
- (6) *Repair sections.* These considerations apply to each type of repair section:

- (a) Section Chief's responsibilities.
- (b) Maintenance procedures.
- (c) Maintenance standards.
- (d) Priorities and schedules.
- (e) Maintenance parts supply.
- (f) Production-line operations.
- (g) Work orders and subwork orders.
- (h) Repair tags.
- (i) Records and reports.
- (j) Statistical data.
- (k) Section equipment maintenance.
- (l) Training.
- (m) Safety.
- (n) Security.
- (o) Fire plan.

(7) *Service platoon headquarters.*

- (a) Platoon officer's responsibilities.
- (b) Administrative responsibilities.
- (c) Operational responsibilities.
- (d) Operational control.
- (e) Control records.
- (f) Priorities and schedules.
- (g) Liaison.
- (h) Material procurement.
- (i) Work orders and subwork orders.
- (j) Records and reports.
- (k) Safety.
- (l) Security.
- (m) Fire plan.

(8) *Service sections.* These considerations apply to each type of service section:

- (a) Section chief's responsibilities.
- (b) Operational procedures.

- (c) Service standards.
- (d) Priorities and schedules.
- (e) Material supply and resupply.
- (f) Work orders and subwork orders.
- (g) Utilities work orders.
- (h) Repair tags.
- (i) Records and reports.
- (j) Statistical data.
- (k) Section equipment maintenance.
- (l) Training.
- (m) Safety.
- (n) Security.
- (o) Fire plan.

50. Revision

The unit SOP should be revised whenever required to eliminate unnecessary data and to bring other data up to date. With increased unit proficiency, detailed procedures may be omitted.

APPENDIX

REFERENCES

1. Department of the Army Pamphlets (DA Pam)

- DA Pam 108-1 Index of Army Motion Pictures, Television Recordings, and Filmstrips.
- DA Pam 310-1 Index of Administrative Publications.
- DA Pam 310-3 Index of Training Publications.
- DA Pam 310-4 Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.
- DA Pam 310-7 Index of Tables of Organization and Equipment, Reduction Tables, Tables of Organization, Type Tables of Distribution, and Tables of Allowances.

2. Army Regulations (AR) and Special Regulations (SR)

- AR 220-70 Companies — General Provisions.
- AR 380-5 Military Security (Safeguarding Defense Information).

AR 611-201	Manual of Enlisted Military Occupational Specialties.
AR 750-5	Maintenance of Supplies and Equipment (Maintenance Responsibilities and Shop Operation).
SR 320-5-1	Military Terms, Abbreviations, and Symbols; Dictionary of United States Army Terms.
SR 320-50-1	Military Terms, Abbreviations, and Symbols; Authorized Abbreviations.
SR 605-105-5	Commissioned and Warrant Officer Personnel Military Occupational Specialties.

3. Field Manuals (FM)

FM 5-20	Camouflage, Basic Principles.
FM 21-5	Military Training.
FM 21-6	Techniques of Military Instruction.
FM 21-30	Military Symbols.
(CM) FM 24-16	(Classified).
(O) FM 31-21	Guerilla Warfare.
FM 38-1	Logistics—Supply Management.
FM 101-5	Staff Officers' Field Manual: Staff Organization and Procedure.

4. Army Training Program (ATP) and Army Training Test (ATT)

ATP 11-205	Army Training Program for Signal Base Maintenance Company.
ATP 21-114	Basic Combat Training Program for Male Military Personnel Without Prior Service.
ATT 11-14	Signal Base Maintenance Company.

5. Supply Manuals

SIG 5	Department of the Army Supply Catalog.
SIG 5-2, Part 1	Cross Index by Government and Manufacturers' Numbers to Signal Corps Stock Numbers.
SIG 5-2, Part 2	Cross-Reference by Signal Corps Stock Numbers to Federal Stock Numbers.
SIG 5-5	Pricing Guide for Signal Corps Equipment.
SIG 7&8 (Series)	Organizational Maintenance Allowances and Field and Depot Maintenance Stockage Guide (including Fixed Plant Maintenance List).

SIG 7-8-10 (Series)	Organizational Maintenance Allowances and Field and Base Maintenance Stockage Guide (included Fixed Plant Maintenance List).
SB 38-50 (Series)	Listing of Item Transfer.
TB SIG 239 (Series)	Maintenance Information.

6. Table of Organization and Equipment (TOE)

TOE 11-587 () Signal Base Maintenance Company.

By Order of *Wilber M. Brucker*, Secretary
of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Official: *Chief of Staff.*

JOHN A. KLEIN,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

Gen Staff, DA (5)	Depot (2)
TIG (2)	POE (OS) (5)
TJAG (2)	Army Terminals (5)
Tec Svc, DA (1)	Trans Terminal Comd (5)
except CSigO	PG (1) except Army Elect
(10)	PG (10)
Hq CONARC (10)	Arsenals (1)
OS Maj Comd (5)	Mil Dist (1)
OS Base Comd (5)	MAAG (2)
Log Comd (2)	Mil Msn (1)
MDW (2)	ARMA (1)
ZI Armies (5)	Units org under fol TOE:
USMA (5)	11-127R, Sig Rep Co (2)
Gen & Br Svc Sch	11-128C, Sig Depot Co (2)
(2) except Sig	11-587R, Sig Base Maint
Sch (40)	Co (10)
Senior PMST (1)	11-592R, Hq & Hq Co, Sig
Gen Depot (2)	Base Depot (5)
Sup Sec, Gen De-	11-597R, Sig Base Depot
pot (1)	Co (2)

NG: State AG (3).

USAR: None.

For explanation of abbreviations used, see SR 320-50-1.